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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/510,378	02/22/2000	Maureen T. Cronin	18547-004131US	3064

33494 7590 06/07/2005

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EXAMINER

MILLER, MARINA I

ART UNIT	PAPER NUMBER
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1631

DATE MAILED: 06/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/510,378

Applicant(s)

CRONIN ET AL.

Examiner

Marina Miller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 82-94 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 88 and 89 is/are allowed.
- 6) ☒ Claim(s) 82-87 and 90-94 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 2/22/2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/10/2005 has been entered.

Terminal disclaimers filed on 7/16/2002 and 3/13/2003 have been received and approved.

Claims 82-94 are pending.

Claims 1-81 are cancelled.

Claims 82-94 are presently under examination.

### ***Drawings***

The drawings are objected to because applicants filed drawing 3 that have two parts, 3 and 3B, but not 3A, and drawing 4 that have three parts, 4, 4B, and 4C, but not 4A. Applicant is required to identify multipanel Fig. 3, as 3A and 3B, and Fig. 4, as 4A, 4B, and 4C, in order to preserve consistency of the presentation over drawings.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing

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should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

#### ***Abstract***

The abstract is objected to because it does not properly describe the claimed invention, which is directed to a process. Applicant is required to submit a new abstract reflecting what is the essence of the claimed invention and set forth a process of the invention.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 82-87 and 90-94 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicants amended claims by deleting a word “collectively” in claims 82, 85, and 90. Applicants also amended claims to recite probes spanning the reference sequence. Applicants argue that limitations of the first set probes recited in the claims such as “the probes including a single interrogation position” and “the first probe set have at least three interrogation positions” are consistent because the first limitation is referring to a property of each probe and the second limitation is referring to a property of the different probes in the first probe set. This argument has been fully considered but is found not persuasive.

Claims 82, 85, and 90 recite in part (a)(1) a first probe set wherein “the probe including a single interrogation position” complementary to a corresponding nucleotide in the reference sequence. However, claim 82, lines 16-18, claim 85, lines 16-18, and claim 90, lines 17-18, limit the probes in the first set to have “at least three interrogation positions.” A reasonable interpretation of the latter limitation comprises the probes having two or three interrogation positions in a single probe. Thus, according to a reasonable interpretation wherein the probes have two or three interrogation positions in a single probe, the two limitations of claims 82, 85, and 90 contradict each other. A probe with a single interrogation position cannot comprise at least three interrogation positions. It is not clear what actual limitation applicants intend for the first set of probes. Thus, claims 82, 85, and 90 are indefinite. Claims 83-84 and 93 depend from claim 82, claims 86-87 depend from claim 85, and claim 91-92 and 94 depend from claim 90, and, therefore indefinite.

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Claim 90 recites the limitation "the segment." There is insufficient antecedent basis for this limitation in the claim. Thus, claims 90-92 and 94 are indefinite.

### *Conclusion*

Claims 88-89 are allowed. Claims 82-87 and 90-94 are rejected.

The following is an examiner's statement of reasons for allowance:

Applicants convincingly argued that a prior art reference, Mundy, U.S. Patent, 4,656,127, teaches only two different probes wherein claim 88 requires at least seven probes, at least four of which are different from one another. Mundy does not disclose analysis of multiple interrogation positions.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marina Miller whose telephone number is (571)272-6101. The examiner can normally be reached on 8-5, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin Marschel, Ph. D. can be reached on (571)272-0718. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marina Miller  
Examiner  
Art Unit 1631

MM

*Marjorie A. Moran*  
*6/2/05*

**MARJORIE A. MORAN**  
**PRIMARY EXAMINER**